Executive Summary
NEBRASKA TRANSIT CORRIDORS STUDY

PROJECT OVERVIEW

The increasing suburbanization of metropolitan areas across the United States has prompted a remarkable revival of regional transit. For the first time in decades, several new commuter railroads have been introduced. States also are continuing a trend in sponsoring new intercity rail passenger services. Where either commuter rail or intercity rail is not appropriate, public transportation authorities have begun initiating new commuter or express bus and even Bus Rapid Transit (BRT) solutions. All these modes are aimed at one goal – providing enhanced mobility by giving people meaningful choices of how to travel.

This goal is at the heart of the Nebraska Transit Corridor Study. The study was sponsored by the Nebraska Transit and Rail Advisory Council (NTRAC), which was created by the State Legislature in 1999 to assess the transportation demand and needs of current and future commuters. Driving the study is the growth in commuter and intercity trips. Along with this growth is the need for enhanced mobility beyond what can be provided by more lanes for congested roadways.

Accordingly, the purpose of this study has been to identify:

- New transit corridors between Nebraska cities; and
- The modal options appropriate for corridor conditions.

The study has also sought to identify the new steps toward implementation for feasible transit options.

HOW THE STUDY WAS DONE

To accomplish these objectives, the study team performed various essential analyses.

- ***Travel patterns between Nebraska cities.*** The team identified travel patterns between the major Nebraska cities. The Nebraska Department of Roads (NDOR) provided the year 2000 highway volumes for the major population centers in Nebraska. These indicated that the heaviest volumes were in three corridors. One was generally east-west: Kearney-Grand Island-Lincoln-Omaha. Another was generally northwest to southeast: Norfolk-Columbus-Fremont-Omaha. The third was generally north-south: Sioux City-Blair-Omaha-Nebraska City.
- ***Ridership forecasts.*** The team developed ridership for rail and bus intercity and commute services in the three corridors. As a result of this analysis, the corridors were shortened to Lincoln-Omaha, Fremont-Omaha, and Blair-Omaha, for these areas are where more trips were occurring. Further, NTRAC decided to focus on commuters, as commuters comprise the largest identifiable market. Commuter rail between Lincoln and Omaha could generate

between 141,000 and 199,000 riders in 2010. Express bus ridership in the same corridor would be less than half of rail, ranging from 56,000 to 81,000. Bus ridership between Fremont and Omaha would range from about 24,000 to 29,000, and between Blair and Fremont from about 28,000 to 32,000. Intercity rail and bus services would generate small fractions of commuter ridership[1].

- ***Commuter rail operating plan.*** Commuter trains would operate bi-directionally between Lincoln and Omaha during morning and evening peak commuter periods. There would be no weekend service, *per se*. However, trains could serve special events, primarily University of Nebraska Cornhusker football events in the fall. Rolling stock would consist of self-propelled rail cars, also known as Diesel Multiple Units (DMUs), which deliver operating cost savings versus conventional locomotive hauled equipment in light density corridors. Total capital costs for the track improvements, station improvements and rolling stock total $79.3 million. Operating subsidies could range from $3.9 million to $4.2 million in 2010.

- ***Express bus operating plans.*** Express bus services could operate in all three corridors. Buses would run bi-directionally between Lincoln and Omaha during morning and evening peak commuter periods. Buses would run to Omaha from Fremont and Blair in the morning peak and return in the evening peak. There would be no weekend service. Rolling stock would be suburban commuter buses, which have more comfortable seating as compared to urban transit buses. Total capital costs for new park-and-ride facilities and rolling stock, and other amenities total $3 million for Lincoln-Omaha, $2.1 million for Fremont-Omaha, and $2.1 million for Blair-Omaha. Operating subsidies could range from $198,000 to $270,000 in 2010 for Lincoln-Omaha, from $51,000 to $64,000 for Fremont-Omaha, and $18,000 to $24,000 for Blair-Omaha in 2010.

- ***Environmental and social impacts analysis.*** The study team looked at the rail and bus options in terms of their environmental and social impacts. The team considered impacts on land use, recreational areas, noise and vibration, biological resources, existing transportation systems, and on neighborhoods and smaller communities (i.e. environmental justice), among other things. Some potential impacts would be negative while others could be positive. For example, the commuter rail and bus options would increase noise and vibration in various places, but they could have positive impacts also by providing more transit alternatives to neighborhoods and smaller communities. Overall, the team found no environmental fatal flaws in the potential transit options.

- ***Financial and economic assessments.*** The study team analyzed the rail and bus options in terms of three scenarios. Scenario A included rail between Lincoln and Omaha, and express buses between Fremont and Omaha, and Blair and Omaha. Scenario B included express buses running in all three corridors. Scenario C included only express buses running between Lincoln and Omaha. For the financial evaluation, the team looked at performance over a 20-year period. For all three, ridership, revenue and fare box recovery improve over time. However, the financial performances of the bus-only Scenarios B and C are superior to Scenario A, the rail-bus combination option. Rail's comparatively high capital and operating costs push Scenario A's cost per new rider to $61.28 dollars,

[1] Commuter ridership represents daily home to work trips, most of which occur in morning and evening peak periods. Intercity ridership is from all other trips.

assuming a high-side 2010 ridership estimate. Shorn of accompanying bus services and their lower costs per new rider, rail by itself has a cost per new rider of $76.64 in 2010. These costs are well above what is considered good by federal funding authorities. Scenarios B and C have costs per new rider under $11, a level considered good.

On the other hand, the economic evaluation showed that rail generated greater benefits in terms of accident savings, traveler cost savings, and congestion-related time savings. The reason is that rail draws greater ridership than buses, and the economic benefits are driven by ridership. On this basis, more economic benefits accrued to Scenario A than to either Scenario B or C. Even so, the complexities of establishing a new rail passenger service, with its high capital costs and operating subsidies, suggests that the bus-only options would be better public investments – at least for now.

LESSONS LEARNED

The team's analysis supports various observations about commuter rail and express bus options in future Nebraska transit corridors.

- ***Rail's High Cost per New Rider Works against the Potential for Federal Funding*** – Commuter rail's cost per new rider, even when combined with express bus services, is higher than federal agencies such as the Federal Transit Administration consider as eligible for federal funding. Accordingly, it is unlikely that federal funds would be available for commuter rail, as currently envisioned.
- ***Local Funding Sources Need to be Found for Transit Options*** – Without the potential for federal funds, State and local funding sources would be needed for the implementation and ongoing operations of a commuter rail option. Express bus alternatives have more attractive costs per new rider, and may be eligible for federal funds. But the bus options would need a source for covering operating subsidies. A common mechanism for funding transit improvements are sales taxes levied at the State and local levels.
- ***Public Policy Decisions and Employer Action Can Spur Rail Ridership*** – Major public policy decisions, like establishing a mix of higher density residential and commercial uses around stations, can help lower operating subsidies by encouraging rail ridership. Large employers like the University of Nebraska could encourage ridership by subsidizing employees' fares. Such actions could lower a rail transit option's the cost per new rider to within sight of federal funding eligibility.
- ***Transit Integration*** – Both rail and bus options will depend on integration with existing transit operations in Omaha and Lincoln to carry commuters from their trains to their workplaces in the morning and back again in the evening. For both commuter rail and bus, local bus operators will need to modify existing routes. There likely will be revenue and cost impacts in doing so for the local operators. These were not calculated in this study.
- ***Overall Feasibility*** – There are no obvious environmental fatal flaws to any of the options. However, some are more practical and easier to implement than others. On balance, given the high start-up costs and operating subsidies for rail, the bus-only options appear easier and more practical to implement.